

Danqing Wang

Research Interest: Developing generative AI to benefit human life. Mainly focus on (but not limited to):

- Reasoning, Planning, Collaboration, Alignment for Large Language Models
- AI for Drug Discovery: Peptide Design, Antibody Discovery, etc.

Github: <https://github.com/dqwang122>

Scholar: Google Scholar, Semantic Scholar

Education










- 2024 – Current **PhD in Language Technologies Institute, Carnegie Mellon University**
Advisor: Prof. Lei Li
- 2022 – 2023 **PhD in Computer Science, UC, Santa Barbara (Transferred)**
Advisor: Prof. Lei Li
- 2018 – 2021 **Master in Computer Science, Fudan University**
Advisor: Prof. Xipeng Qiu and Prof. Xuanjing Huang
- 2014 – 2018 **Bachelor in Computer Science and Technology, Fudan University**

Experience

- 2024.3 – 2024.5 **Research Scientist Intern, Alibaba (Team Qwen)**
Mentor: Jianxin Ma
Topic: LLM Reasoning
Publication: *TypedThinker: Typed Thinking Improves Large Language Model Reasoning*, preprint
- 2023.6 – 2024.1 **Research Scientist Intern, Meta AI (FAIR)**
Mentor: Yuandong Tian
Topic: Personalized Alignment in LLMs
Publication: *Learning Personalized Alignment for Evaluating Open-ended Text Generation*, EMNLP 2024
- 2020.4 – 2022.8 **Research Scientist, ByteDance Research (AI Lab)**
Mentor: Jiaze Chen, Hao Zhou, and Lei Li
Topic: Text Generation, AI for Drug Design
Publication: *Accelerating Antimicrobial Peptide Discovery with Latent Structure*, KDD 2023
On Pre-training Language Model for Antibody, ICLR 2023
Contrastive Aligned Joint Learning for Multilingual Summarization, ACL 2021 Findings

Publications

- Preprint **[1] Cooperative Strategic Planning Enhances Reasoning Capabilities in Large Language Models** 🐉
Danqing Wang, Zhuorui Ye, Fei Fang, Lei Li
- Preprint **[2] TypedThinker: Typed Thinking Improves Large Language Model Reasoning** 🐉
Danqing Wang, JianXin Ma, Fei Fang, Lei Li
- EMNLP 2024 **[3] Learning Personalized Alignment for Evaluating Open-ended Text Generation** 🐉
Danqing Wang, Kevin Yang, Hanlin Zhu, Xiaomeng Yang, Andrew Cohen, Lei Li, Yuandong Tian
- KDD 2024 **[4] Global Human-guided Counterfactual Explanations for Molecular Properties via Reinforcement Learning** 🐉
Danqing Wang, Antonis Antoniadou*, Kha-Dinh Luong, Edwin Zhang, Mert Kosan, Jiachen Li, William Yang Wang, Ambuj Singh, Lei Li*
- EMNLP 2023 **[5] Learning from Mistakes via Cooperative Study Assistant for Large Language Models** 🐉
Danqing Wang, Lei Li
- EMNLP 2023 **[6] Instructscore: Towards Explainable Text Generation Evaluation with Automatic Feedback** 🐉
Wenda Xu, Danqing Wang, Liangming Pan, Zhenqiao Song, Markus Freitag, William Yang Wang, Lei Li
- NeurIPS 2023 **[7] ALGO: Synthesizing Algorithmic Programs with Generated Oracle Verifiers** 🐉
Kexun Zhang, Danqing Wang, Jingtao Xia, William Yang Wang, Lei Li

- ICLR 2023 **[8] On Pre-training Language Model for Antibody** 
Danqing Wang, Fei Ye, Hao Zhou
- KDD 2023 **[9] Accelerating Antimicrobial Peptide Discovery with Latent Structure** 
Danqing Wang, Zeyu Wen, Fei Ye, Lei Li, Hao Zhou
- NAACL 2022 **[10] MTG: A Benchmark Suite for Multilingual Text Generation** 
 Findings *Yiran Chen, Zhenqiao Song, Xianze Wu, Danqing Wang, Jingjing Xu, Jiaze Chen, Hao Zhou, Lei Li*
- NLPCC 2021 **[11] CNewSum: A Large-scale Chinese News Summarization Dataset with Human-annotated Adequacy and Deducibility Level** 
Danqing Wang, Jiaze Chen, Xianze Wu, Hao Zhou, Lei Li
- AAAI 2021 **[12] Enhancing Scientific Papers Summarization with Citation Graph** 
Chenxin An, Ming Zhong, Yiran Chen, Danqing Wang, Xipeng Qiu, Xuanjing Huang
- ACL 2021 **[13] Contrastive Aligned Joint Learning for Multilingual Summarization** 
 Finding *Danqing Wang, Jiaze Chen, Hao Zhou, Xipeng Qiu, Lei Li*
- ACL 2020 **[14] Heterogeneous Graph Neural Networks for Extractive Document Summarization** 
Danqing Wang, Pengfei Liu*, Yining Zheng, Xipeng Qiu and Xuanjing Huang*
- ACL 2020 **[15] Extractive Summarization as Text Matching** 
Ming Zhong, Pengfei Liu*, Yiran Chen, Danqing Wang, Xipeng Qiu and Xuanjing Huang*
- ACL 2019 **[16] Searching for Effective Neural Extractive Summarization: What Works and What's Next** 
Ming Zhong, Pengfei Liu*, Danqing Wang, Xipeng Qiu, Xuanjing Huang*

Academic Services

- Program Committee of ICML, ICLR, NeurIPS, ACL, EMNLP, NAACL, AAAI, KDD
- TA for CS190I Deep Learning (Winter 2023) and CS165B Machine Learning (Spring 2023)
- Local Organization Chair of Social NLP Symposium 2022

Honor

- 2022** Academic Excellence Fellowship
- 2021** Shanghai Outstanding Graduates (5% of graduates)
- 2020** Venustech Scholarship (1% of Fudan students)
- 2019** Scholarship for Outstanding Students (First Prize)
- 2017** Fudan's Undergraduate Research Opportunities Program